

and the implications that this entails. **METHODS:** It is presented as a cross-sectional research, drafted in a descriptive and analytical component of data. It is based on the application of an anonymous questionnaire to these patients, which consists of three parts: 1) socio-demographic, clinical and disease's characterization data; 2) Pediatric Quality of Life Inventory Version 4.0 – PedsQLTM 4.0 and 3) Diabetes Quality of Life questionnaire – DQOL. The data was analyzed using SPSS® software – version 17 and were considered significant at  $p$ -value  $<0.10$ . **RESULTS:** In total, 17 (68%) children and adolescents between 11-18 years, with an average number of years with disease of 6.29 years, participated in this study. The dimensions of PedsQLTM 4.0 “Emotional Functioning” and the “School Functioning” and the sub-scales of DQOL “Worries about Diabetes” and “Satisfaction with treatment” imply worst results in Health-related Quality of Life. It is observed that the variables gender, location, school performance and employment status of mother and father can influence the level of quality of life. Moreover, this level is more satisfactory in the presence of records related to more appropriate Body Mass index, fewer years of disease, lower values of glycated hemoglobin type A1c and lower number of insulin injections per day. **CONCLUSIONS:** It is recognized that this work offers a partial view of the disease, but contributes to understand some implicated factors in its control and in the level of quality of life of diabetic children and adolescents. It is recommended that such assessments should be made regularly, within a multi-disciplinary team which should be responsible for monitoring these patients

#### Diabetes/Endocrine Disorders – Health Care Use & Policy Studies

##### PDB62

##### THE IMPACT OF CLINICAL INERTIA IN THE TREATMENT OF TYPE 2 DIABETES

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**OBJECTIVES:** Following the introduction of the Quality and Outcomes Framework (QOF) in the UK there has been an increase in the number of patients below-target HbA1c levels (HbA1c  $<7.5\%$ ) from 39.7% to 52.1% between 2006 and 2008. However, a substantial number of patients with type 2 diabetes mellitus (T2DM) remain poorly controlled. This study quantifies the effect of poorly controlled T2DM on the average number of microvascular and macrovascular events. **METHODS:** The Cardiff Type 2 Diabetes Model was initiated with cohort profiles consistent with current UK clinical practice in patients newly diagnosed with T2DM. HbA1c treatment effects were modelled to correspond with the intensive and conventional control groups in the UKPDS over a 20-year time horizon assuming: 1) patients achieve and maintain target control (“controlled”), and 2) patients fail to achieve target control (“uncontrolled”) having HbA1c levels of 7.5-9.0%. Data from primary care (THIN) were used to categorise the number of patients by HbA1c level in those on first-line therapy or diet and exercise whose duration of diabetes was  $<2$  years. **RESULTS:** Data from THIN demonstrated that 50% of patients had HbA1c below 7%. Of the remaining, 20%, 13%, 7% and 10% had HbA1c readings in the following ranges: 7-7.4%; 7.5-7.9; 8-8.4 and  $\geq 8.5\%$  respectively. Compared to those controlled subjects, with an HbA1c  $<7\%$ , the model predicts 92, 115, 138 and 162 excess macrovascular and microvascular complications in those in the 7-7.4%; 7.5-7.9; 8-8.4 and  $\geq 8.5\%$  HbA1c groups respectively. **CONCLUSIONS:** Given current budgetary constraints, an ageing population, and increasing obesity, it is imperative that patients with T2DM are optimally managed in routine clinical practice from the outset. Failure to manage patients appropriately will have substantial implications for both patients and the healthcare system.

##### PDB63

##### ANTI-DIABETIC THERAPEUTIC STRATEGIES FOR TYPE 2 DIABETES PATIENTS WITH CHRONIC KIDNEY DISEASE IN FRANCE

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**OBJECTIVES:** To assess how general practitioners (GPs) in France adapt their anti-diabetic therapeutic strategies among type 2 diabetes mellitus (T2DM) patients who also had chronic kidney disease (CKD). **METHODS:** A multi-centric cross-sectional and retrospective study was undertaken, investigating patient characteristics, disease severity, therapeutic strategies, reasons for changes thereof through questionnaires filled by GPs, coupled with drug treatments extracted from the IMS Disease Analyser database. **RESULTS:** The study sample included 120 T2DM patients (median age = 76.0, 45% men): 37 with stage 3a CKD ( $45 \leq \text{GFR} < 60$  ml/min, median age = 75.1, 57% men) and 83 with stage 3b or severe CKD ( $\text{GFR} < 45$  ml/min, median age = 76.4, 38% men). Oral anti-diabetic treatments were widely prescribed among CKD patients: of those with stage 3a and 3b, respectively 37.5% and 39.3% had oral monotherapy, while 40.6% and 28.6% had oral double or triple therapy. 21.9% and 32.1% had insulin therapy (3a and 3b, respectively). 65% of patients were treated with an anti-diabetic drug which is either contraindicated or not recommended for CKD patients; GPs adapted the anti-diabetic strategy during the previous year for 43% patients, 53% of the time due to CKD. Mean HbA1c was 7.1% and 7.2% among CKD stage 3a and 3b patients, respectively; with 58% (3a) and 54% (3b) having HbA1c  $<7$ . Only 23% of patients achieved control of diabetes (GP assessment), with treatment that does not include a drug either contraindicated or not recommended for this patient group; 2/3 of these patients received insulin. **CONCLUSIONS:** Treating T2DM patients with CKD remains a challenge for GPs: data suggest that GPs are favouring glycemic control over safety by using anti-

diabetic drugs that are either contraindicated or not recommended for CKD patients. New oral treatments that would allow physicians to control glycemia while appropriately considering impaired renal function are needed.

##### PDB64

##### CRITERIA FOR REFERRAL OF TYPE 2 DIABETES PATIENTS FROM PRIMARY CARE TO SPECIALIZED CARE AND VICE VERSA IN SPAIN. PATHWAYS STUDY

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**OBJECTIVES:** To assess the causes for referral of type 2 diabetes (T2DM) patients from primary care (PC) to specialized care (SC) in Spain. To assess the degree of compliance with referral quality markers established in national guidelines/recommendations. **METHODS:** Observational, cross-sectional, multi-centre national study, in PC and SC. Each physician provided data on usual practice for T2DM patient referral and clinical status of patients with T2DM for 6 referred patients. Inclusion criteria for patients were: written consent, previous T2DM diagnosis and age over 18; exclusion criteria: T1DM, MODY, LADA and secondary diabetes. Recommendations of the Spanish Society for Endocrinology and Nutrition (SEEN) and the National Health System (SNS), were used as reference documents to assess compliance. **RESULTS:** Data from clinical practice of 143 endocrinologists and 641 general practitioners (GPs), and from referrals of 805 patients to PC and 3624 to SC are presented. PC to SC referrals: 31.8% of GPs reported the existence of a coordination protocol with endocrinologists. The most frequent communication tool with SC was Consultation Report (89.2%). The referral criterion that most GPs reported to apply in usual practice was Metabolic Instability (80.5%). The most frequent cause for referral among the patients studied was Reassessment (48.4%), a criterion not included in national guidelines. 46.8% of GPs applied in usual practice all SNS, 3.9% all SEEN referral criteria. SC to PC referrals: 46.2% of endocrinologists reported the existence of a coordination protocol with PC. The most frequent communication channel with PC was Medical History (47.2%). The referral criterion reported by a higher number of endocrinologists (96.5%) was Goal Achievement, most frequent cause for referral also among the patients studied. **CONCLUSIONS:** These findings emphasise the need of improving coordination processes to optimize and homogenize referrals. The number of reported coordination protocols is low, and the compliance with national guidelines poor.

##### PDB65

##### UNMET NEED AND DRUG MANAGEMENT CHALLENGES IN ELDERLY TYPE 2 DIABETES MEDICARE PART D POPULATION

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**OBJECTIVES:** To identify patient barriers, clinical management concerns, and drug coverage issues for elderly type 2 diabetes patients in the Medicare Part D population. **METHODS:** A literature review was conducted using PubMed with searches limited to studies published in the last 2 years, in English, and in aged 65+. Searches included combinations of the following terms: diabetes mellitus, mortality, prevention and control, Medicare, diabetes management, treatment guidelines, control. Hand searching of clinical management guidelines and diabetes conferences (2007-present) was conducted to identify further issues pertaining to the research questions of interest. **RESULTS:** The literature search by key word yielded 141 relevant articles, 42 of which were included after abstract review for relevance. Literature on clinical management challenges identified a high prevalence of untreated disease in this patient population due to a significantly large number of elderly type 2 diabetes patients being undiagnosed. Adherence to treatment guidelines in this patient population is challenging due to the high level of co-morbidities that may complicate the goal of intensive glucose management. As more oral antidiabetic agents become available as treatment options, patients become more likely to change therapies with more elderly patients switching from single-agent to combination therapy. Literature on cost-sharing in Medicare Part D and the current coverage gap suggest that patients covered under the benefit face a high out of pocket burden for treatment and that such costs lead to medication non-adherence and physician switching to less efficacious alternatives. **CONCLUSIONS:** Clinical management challenges and economic barriers to access are more pronounced for elderly Medicare Part D than in the general population of type 2 diabetes patients. Further insight and research are needed to explore how policy changes for coverage and treatment guidelines may be able to address these concerns.

##### PDB66

##### ACHIEVEMENT OF GLYCEMIC CONTROL AND RELAPSE AMONG PATIENTS INITIATING BASAL INSULIN FROM A GEOGRAPHICALLY-DIVERSE US ELECTRONIC MEDICAL RECORD (EMR) DATABASE

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**OBJECTIVES:** To describe demographic and clinical characteristics of diabetic patients who initiated basal insulin and assess their glycemic control. **METHODS:** Physician encounters recorded in the General Electric EMR Database (2005-2010) were assessed. Patients with type II diabetes (T2DM) who initiated basal insulin between February 2006 and August 2009 were selected, with initiation defined as no prescription record of insulin in prior 15 months. Patients were followed for an average of 2.5 years after insulin initiation, and the proportion achieving A1c  $\leq 7\%$  (“goal”) and time to achieving goal were assessed. Among patients who reached